I. AMENDMENTS

Please amend claims 1 and 27, as set forth below. Upon entry of the amendment, the status of the claims will be as follows:

1. (Currently Amended) A method of inhibiting proliferation of tumor cells characterized by having a highly glycolytic phenotype comprising contacting the cells with a proliferation inhibitory effective amount of an antisense polynucleotide ~~or oligonucleotide~~ that hybridizes with a mRNA encoding a hexokinase ~~under conditions that allow hybridization of the antisense polynucleotide with the mRNA~~ and inhibits hexokinase gene expression, thereby inhibiting the proliferation of tumor cells.

2. (Original) The method of claim 1, wherein the mRNA encoding hexokinase has a nucleotide sequence complementary to a sequence as set forth in SEQ ID NO:1.

3. (Original) The method of claim 1, wherein the hexokinase is Type II hexokinase.

4. (Withdrawn) The method of claim 1, wherein the hexokinase is Type I hexokinase.

5. (Withdrawn) The method of claim 1, wherein the mRNA encoding hexokinase has a nucleotide sequence complementary to a sequence as set forth in SEQ ID NO:2.

6. (Original) The method of claim 1, wherein the antisense polynucleotide or oligonucleotide comprises at least one modified internucleoside linkage.

7. (Original) The method of claim 6, wherein the modified internucleoside linkage is a phosphorothioate linkage.

8. (Original) The method of claim 1, wherein the antisense oligonucleotide comprises at least one modified sugar moiety.

9. (Original) The method of claim 8, wherein the modified sugar moiety is a 2'-O-methoxyethyl sugar moiety.

10. (Original) The method of claim 1, wherein the antisense oligonucleotide comprises at least one modified nucleobase.

11. (Original) The method of claim 10, wherein the modified nucleobase is a 5-methylcytosine.

12. (Original) The method of claim 1, wherein the antisense oligonucleotide is a chimeric oligonucleotide.

13. (Original) The method of claim 1, wherein the tumor cells are located in a tissue selected from the group consisting of brain, colon, urogenital, lung, renal, prostate, pancreas, liver, esophagus, stomach, hematopoietic, breast, thymus, testis, ovarian, and uterine tissue.

14. (Original) The method of claim 1, wherein prior to treating tumor cells with the antisense polynucleotide or oligonucleotide, the cells are diagnosed as highly glycolytic by obtaining a specimen selected from the group consisting of serum, urine, saliva, blood, cerebrospinal fluid, pleural fluid, ascites fluid, sputum, stool, bone marrow and biopsy sample.

15. (Previously Presented) The method of claim 1, wherein said tumor cells comprise tumor cells of a low grade astrocytoma, anaplastic astrocytoma, glioblastoma, medulloblastoma,

gastric cancer, hepatoma, colorectal cancer, colorectal adenoma, acute myelogenous leukemia, lung cancer, renal cancer, leukemia, breast cancer, prostate cancer, endometrial cancer, bone cancer, squamous cell cancer or neuroblastoma.

16. (Original) A method of modulating the expression of a hexokinase in a tumor characterized as having a highly glycolytic phenotype comprising contacting tumor cells or tissue with an antisense polynucleotide or oligonucleotide that hybridizes with the hexokinase encoding mRNA such that hexokinase enzyme translation is inhibited.

17. (Withdrawn) A pharmaceutical preparation useful for inhibiting proliferation of tumor cells comprising an antisense polynucleotide that hybridizes with a mRNA encoding a hexokinase in a pharmaceutically effective carrier.

18. (Withdrawn) the pharmaceutical preparation of claim 17, wherein the antisense polynucleotide has a sequence complementary to the sequence set forth in SEQ ID NO:1.

19 to 26. (Cancelled)

27. (Currently Amended) A method of inhibiting proliferation of tumor cells characterized by having a highly glycolytic phenotype due to a Type I hexokinase or a Type II hexokinase, comprising contacting the cells with a proliferation inhibitory effective amount of an antisense polynucleotide ~~or oligonucleotide~~ that hybridizes with a mRNA encoding the Type I hexokinase or the Type II hexokinase ~~under conditions that allow hybridization of the antisense polynucleotide with the mRNA~~ and inhibits hexokinase gene expression, thereby inhibiting the proliferation of tumor cells.

28. (Previously Presented) The method of claim 27, wherein the mRNA encoding the hexokinase has a nucleotide sequence complementary to a sequence as set forth in SEQ ID NO:1.

29. (Withdrawn) The method of claim 27, wherein the mRNA encoding the hexokinase has a nucleotide sequence complementary to a sequence as set forth in SEQ ID NO:2.

30. (Previously Presented) The method of claim 27, wherein the antisense polynucleotide or oligonucleotide comprises at least one modified internucleoside linkage, at least one modified sugar moiety, or at least one modified nucleobase.

31. (Previously Presented) The method of claim 27, wherein the antisense oligonucleotide is a chimeric oligonucleotide.

32. (Previously Presented) The method of claim 27, wherein the tumor cells are located in brain, colon, urogenital tissue, lung, renal tissue, prostate, pancreas, liver, esophagus, stomach, hematopoietic tissue, breast, thymus, testis, ovarian tissue, or uterine tissue.

33. (Previously Presented) The method of claim 27, wherein said tumor cells comprise tumor cells of a low grade astrocytoma, anaplastic astrocytoma, glioblastoma, medulloblastoma, gastric cancer, hepatoma, colorectal cancer, colorectal adenoma, acute myelogenous leukemia, lung cancer, renal cancer, leukemia, breast cancer, prostate cancer, endometrial cancer, bone cancer, squamous cell cancer or neuroblastoma.